

Cumulative Review 5 (Graphing)

Name _____ Date _____ Period _____

1. Determine if the functions are even, odd or neither.

a. $f(x) = -3x^4$

b. $f(x) = 2x^3 + 5x$

c. $f(x) = 6x^3 - x^2$

2. Graph the given function and determine the following:

$$f(x) = x^3 - 2x^2 - 3x$$

Relative maximum:

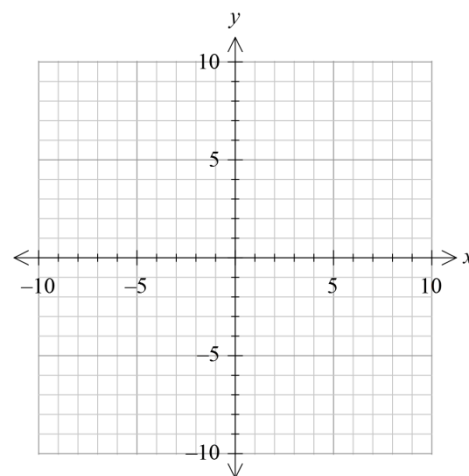
Relative minimum:

x-intercepts:

y-intercept:

On what interval(s) is the function increasing?

On what interval(s) is the function decreasing?



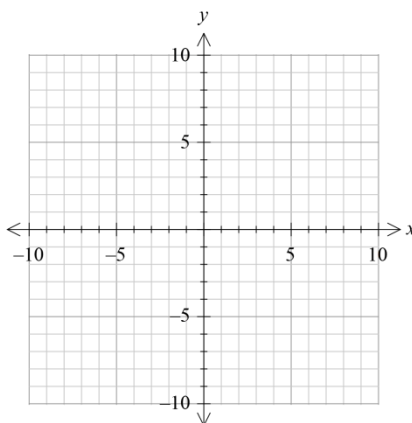
3. Graph the given function and determine the following:

$$f(x) = \frac{x^2 - 9}{x^2 - 2x - 15}$$

Domain: _____

Range: _____

Asymptotes: _____



4. Write the equation of the function after the following transformations are applied, in order, for the graph of $f(x) = |x|$.

1. Vertical shrink by a factor of $\frac{1}{2}$.

2. Reflection across y-axis.

3. Shift up 3.

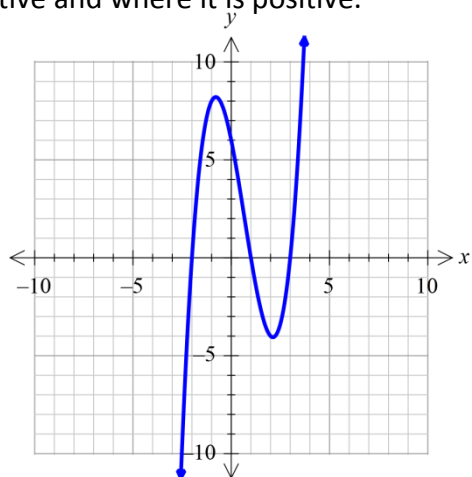
5. If $f(x) = |x|$ where does the point $(0, 0)$ move to when the following transformations are applied

$$f(x+2) - 4?$$

6. Identify the intervals where the function is negative and where it is positive.

Negative: _____

Positive: _____



7. Identify the domain and range for the graph of the given function.

Domain: _____

Range: _____

